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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
MILLS, DONALD L

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 09/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	Applicant(s)
Office Action Summary	09/588,632	MO ET AL.
	Examiner	Art Unit
	Donald L Mills	2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _06 June 2000_ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-35_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-14,19-22,27-30 and 35_ is/are rejected.

7) ☒ Claim(s) _15-18,23-26 and 31-34_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _06 June 2000_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _5-12_ .   6) ☐ Other: .

DETAILED ACTION

Drawings

1.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they

include the following reference signs not mentioned in the description: 52, 56 (Figure 1;) 310e-n,

310q, 312a-q (Figure 4;) 226a, 228a (Figure 6A;) 228b, and 228n (Figure 6B.)

2.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they

do not include the following reference signs mentioned in the description: "220a" and "220n"

(Page 22, line 6, and all subsequent references to 220a and 220n regarding Figure 6A;) and

"222a" and "222b" (Page 24, line 11 and 19, and all subsequent reference to 222a and 222b

regarding figures 6B-D.)

3.   The drawings are objected to because:

Referring to Figure 5, "210a" should be corrected to "220a."

Referring to Figure 6A, "200A" should be corrected to "200a;" and "229" should be

corrected to "229a."

Referring to Figure 6B, "200B" should be corrected to "200b."

Referring to Figure 6C, "200C" should be corrected to "200c."

Referring to Figure 6D, "200D" should be corrected to "200d."

Referring to Figure 6E, "200E" should be corrected to "200e." A proposed drawing

correction or corrected drawings are required in reply to the Office action to avoid abandonment

of the application. The objection to the drawings will not be held in abeyance.

Specification

4.   The disclosure is objected to because of the following informalities:

Page 1, line 5, "Internaet" should be corrected to "Internet."

Page 15, line 5, "payload" should be corrected to "area;" and line 14, "(Qos)" should be changed to "(QoS)."

Page 21, line 9, "224n" should be corrected to "224;" and line 16, "30" should be corrected to "230."

Page 25, line 26, "224a" should be corrected to "220a;" and line 27, "224b" should be corrected to "220b."

Page 26, line 29, "sub-transport label 224n" should be corrected to "label value 224n."

Page 27, line 6, "224a" should be corrected to "220a;" and line 7, "224n" should be corrected to "220n."

Page 30, line 31, "332" should be corrected to "322." Appropriate correction is required.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 1, 2, 5-14, 19-22, 27-30, and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Isoyama (US 6,169,739 B1).

Regarding claims 1, 2, 6, and 12, Isoyama discloses a system, which comprises:

Receiving connectionless and connection oriented signals from a plurality of source

peripheral network elements (Referring to Figure 2, the VLAN servers, **12a** and **12b**, inherently

receives both connectionless and connection oriented traffic since they are connected to VLAN

clients **11a** and **11b**. See column 2, lines 60-62.)

Determining a signaling type associated with each signal, the signaling type comprising

connectionless signaling or connection oriented signaling/The signaling type further comprises a

combination of connectionless and connection oriented signaling (Claim 2 and 12) (Referring to

Figure 2, each VLAN client, **11a** and **11b**, determines whether the packet has a connectionless

traffic or connection oriented traffic. See column 2, lines 60-62.)

Appending a transport label to each signal, each transport label comprising an

indication of the signal's signaling type (Referring to Figure 2, as a layer-3 protocol, the network

employs Ipv6 protocol where each packet contains the identity of the upper layer application.

See column 2, lines 57-60.)

Communicating the signals and appended transport labels toward destination peripheral

network elements according to signaling procedures associated with each signal's signaling

type/At least one signal comprises a connectionless signal and wherein the label value field of

that signal's transport label comprises a node identification operable to identify a network

element through which the at least one signal will be routed (Claim 6) (Referring to Figures 1

and 2, if the packet has connectionless traffic it is forwarded as a datagram to the server **12a** over

a path **14a**. See column 3, lines 7-9.)

Regarding claims 5, 20 and 28, Isoyama discloses a signal format, which comprises:

A format field operable to identify the signal's signaling type (Claims 5, 20, and 28)

(Referring to Figure 2, the layer-3 header the IPv6 packet contains a priority field for

establishing identity of the application. See column 2, lines 58-60.)

A label value field containing information useful in processing the associated signal

according to its signaling type (Claims 5, 20, and 28) (Referring to Figure 2, the priority field,

by definition contains the traffic type, is examined to determine the traffic type for traffic

forwarding. See column 2, lines 60-62.)

Regarding claim 7, Isoyama discloses *at least one signal comprising a connection*

oriented signal and wherein the label value field of that signal's transport label comprises a path

identifier operable to facilitate construction of a virtual circuit over which the at least one signal

will traverse (Referring to Figures 3 and 4, if the packet has connection oriented traffic the client

11a sends a connection-setup message through the network to the destination **11b** to establish a

connection **17**, which inherently includes a virtual circuit through which the traffic will travel.

See column 3, lines 15-26.)

Regarding claims 8, 13, 21, and 29, Isoyama discloses *at least one of the transport labels*

comprising a plurality of sub-transport labels, each sub-transport label providing an instruction

regarding the associated signal's communication toward one of the destination peripheral

network element (Claims 8, 13, and 21) (Referring to Figures 1 and 2, the layer-3 header of the

datagram, which by definition includes source and destination address information, is examined

to determine its route to server **12b**. See column 3, lines 10-12.)

Regarding claim 9 and further regarding claim 13, 21, and 29 Isoyama discloses *the*

plurality of sub-transport labels comprising a stack of sub-transport labels, and wherein the top

sub-transport label identifies a node identification useful in determining a next hop for a

connectionless signal or a path identification useful in determining a virtual circuit for a

connection oriented signal (Claims 9, 13, 21, and 29) (Referring to Figures 1 and 2, the layer-3

header using the IPv6 protocol, which by definition contains the traffic identifier followed by the

source address followed by the destination address information, is utilized by the server **12a** to

determine the routing path of the datagram. See column 3, lines 10-12.)

Regarding claims 10, 14, 22, and 30 Isoyama discloses *the sub-transport label at the*

bottom of the stack of sub-transport labels includes an interface identifier operable to specify an

interface between a network element processing the signal and the destination peripheral

network element (Regarding claims 10, 14, 22, and 30) (Referring to Figures 1 and 2, the layer-3

header using the IPv6 protocol, by definition contains the traffic identifier followed by the source

address followed by the destination address information, is utilized by the server **12a** to

determine the routing path of the datagram to its destination, which inherently includes

specifying the interface through which the datagram will travel. See column 3, lines 10-12.)

Regarding claim 11, Isoyama discloses a system, which comprises:

Receiving connectionless signals and connection oriented signals at a first network

element (Referring to Figure 2, the VLAN servers, **12a** and **12b**, inherently receives both

connectionless and connection oriented traffic since they are connected to VLAN clients **11a** and

11b. See column 2, lines 60-62,) *each signal including a transport label having a format field*

identifying a signaling type associated with the signal and a label value field containing

information useful in processing the signal according to its signaling type (Referring to Figure 2,

the layer-3 header the IPv6 packet contains a priority field, by definition contains the traffic type,

for establishing identity of the application. See column 2, lines 58-60.

For each signal, examining the format field of the transport label to determine the

signal's signaling type/For each signal, interpreting the information in the label value field of the

transport label according to the signal type (Referring to Figure 2, the priority field, by

definition contains the traffic type, is examined to determine the traffic type for traffic

forwarding according to the type of traffic. See column 2, lines 60-62.)

For each signal, communicating the signal to another network element using signaling

procedures associated with the signal's signaling type (Referring to Figures 1 and 2, if the packet

has connectionless traffic it is forwarded as a datagram to the server **12a** over a path **14a**. See

column 3, lines 7-9.)

Regarding claim 19, Isoyama discloses a system, which comprises:

A first core network element operable to receive a signal associated with a signaling

type, the signaling type comprising connectionless signaling or connection oriented signaling

(Referring to Figure 2, each VLAN client, **11a** and **11b**, determines whether the packet has a

connectionless traffic or connection oriented traffic which inherently includes receiving

connectionless or connection oriented packets. See column 2, lines 60-62,) *the first core network*

element further operable to append to the signal a transport label including an instruction

regarding how to process the signal according to its signaling type (Referring to Figures 1 and 2,

the network employs IPv6 protocol which by definition includes formatting the signal with a

header which comprises information on determining the routing of the packet according to its

traffic type. See column 2, lines 57-58 and column 3, lines 6-12.)

A second core network element operable to receive the signal with appended transport

label, to examine the transport label to determine the signaling type associated with the signal,

and to process the signal according to the associated signaling type (Referring to Figures 1 and

2, the server **12a** utilizes the layer-3 header to determine the routing path of the datagram to its

destination, which is dependent on whether the packet is connectionless or connection-oriented.

See column 3, lines 3-14 and column 3, lines 6-12.)

Regarding claim 27, Isoyama discloses a system, which comprises:

A processor operable to receive a network signal from the first peripheral network

element and to determine a signaling type associated with the network signal (Referring to

Figure 2, each VLAN client, **11a** and **11b**, determines whether the packet has a connectionless

traffic or connection oriented traffic which inherently includes receiving connectionless or

connection oriented packets, which inherently utilizes a processor. See column 2, lines 60-62,)

the processor further operable to generate a transport label including an instruction regarding

how to process the signal according to its Signaling type, and to append the transport label to

the network signal to generate a formatted network signal (Referring to Figures 1 and 2, the

network employs IPv6 protocol which by definition includes formatting the signal with a header

that consists of information for determining the routing of a packet which inherently utilizes a

processor. See column 2, lines 57-58.)

A core interface operable to receive the formatted network signal and to facilitate

communication of the formatted network signal to another core network element for processing

according to the signaling type identified in the transport label (Referring to Figures 1 and 2,

server **12a** forwards the datagram over path **14a** to server **12b** then to destination client **11b** if the

packet has connectionless traffic. See column 3, lines 7-14.)

Regarding claim 35, Isoyama discloses *a peripheral interface operable to receive the*

network signal from the first peripheral network element, and to communicate network signals

received from core network elements to the second peripheral network element (Referring to

Figures 1 and 2, the datagram is received by client **11b**, which inherently comprises an interface

in order to receive packets, after being routed through VLAN **31b**'s server **12a** and **12b** from

client **11a**. See column 3, lines 6-14.)

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isoyama

(US 6,169,739 B1) in view of Wilford (US 2001/0012295 A1).

Regarding claim 3 as explained above in the rejection statement of claim 1, Isoyama

discloses all of the limitations of the claim 1 (parent claim). Isoyama further discloses *signals*

comprising Internet Protocol signals (Referring to Figures 1 and 2, the protocol stacks of the

ATM network comprises an IP layer (layer-3) **114**, for the transmission of IP packets. See

column 2, lines 51-60.) Isoyama does not disclose *at least some of the plurality of signals*

comprise Multi-protocol label switching signals.

Wilford teaches that it is advantageous for routers to operate as quickly as possible, so that as many packets as possible can be switched in a unit time (See page 1, section 004.) Wilford further teaches a method for routing protocols such as MPLS in which the destination address and its length are matched using a lookup table.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the MPLS routing lookup method of Wilford in the ATM network of Isoyama. One of ordinary skill in the art would have been motivated to do so in order to create a more efficient multi-protocol server.

Regarding claim 4 as explained above in the rejection statement of claim 1, Isoyama discloses all the limitations of claim 1 (parent claim). Isoyama does not disclose *at least some of the plurality of signals comprising multi-protocol label switching signals with asynchronous transfer mode, Frame Relay, or packet-over-SONET encoding.*

Wilford teaches that it is advantageous for routers to operate as quickly as possible, so that as many packets as possible can be switched in a unit time (See page 1, section 004.) Wilford further teaches a method for routing protocols such as MPLS in which the destination address and its length are matched using a lookup table.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the MPLS routing lookup method of Wilford in the ATM network of Isoyama. One of ordinary skill in the art would have been motivated to do so in order to create a more efficient multi-protocol ATM server.

Allowable Subject Matter

9.   Claims 15-18, 23-26, and 31-34 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Donald L Mills whose telephone number is 703-305-7869. The

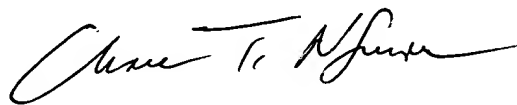examiner can normally be reached on 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-4700.

Donald L Mills

September 11, 2003

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
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